An Election of Species Requirement was required between the Figures. Accordingly, Applicant elected Species I, Figures 1, 3, 4 and 5 and Species A, Figure 2, claims 1-4 and 9. However, Applicant retains claims 6-8 as they are dependent from claim 1 and remain generic to claim 1. Thus, claims 6-8 would be allowable for the same reasons claim 1 is allowable.

Furthermore, Applicant also requests consideration of added claim 10 because Applicant asserts a search for claim 10 does not place a serious burden upon the Examiner. In particular, Applicant's claim 10 recites a cord which extends from an outside of the tire toward an inside thereof. Conversely, Applicant's claim 1 recites a cord which extends from an inside of the tire toward an outside thereof. In fact, as shown in Masclaux, U.S. Patent No. 4,700,765, the Examiner applied a reference which uses a cord which extends from both the inside of the tire toward an outside and from the outside of the tire toward the inside. Thus, Applicant submits that a search for the features of claim 1 also includes a search for the features of claim 10. It is respectfully requested that claim 10 be entered and considered by the Examiner.

Claims 1-4 were rejected under 35 U.S.C. §103(a) over Southarewsky, U.S. Patent No. 5,759,314, and further in view of "Science and Technology of Rubber" (Science). The rejection of claim 3 has been rendered moot by the cancellation of claim 3. The rejection of claims 1, 2 and 4 is respectfully traversed.

Applicant asserts neither Southarewsky nor Science, nor their combination, disclose or suggest a pneumatic radial tire with a continuous cord successively repeating roundtrip in at least one of the two bead cores as a pair between the pair of the bead portions along a circumference of the bead portions wherein the cord of the carcass ply has a roundtrip return portion located through a side face of the bead core having the above structure so as to extend from an inside of the tire toward an outside thereof in the widthwise direction and cover at

least an innermost steel wire arrangement of the bead core in the radial direction as recited in claim 1 or to sandwich the roundtrip return portion between two bead cores as recited in claim 2.

Southarewsky fails to disclose Applicant's claimed invention because Southarewsky uses a plurality of carcasses arranged side by side rather than a continuous cord successively repeating roundtrip as recited in Applicant's claim 1. Southarewsky disclose a bias tire 110 which includes a first pair of bead members 112A, 112B and a second pair of bead members 114A, 114B (col. 4., lines 19-24 and Fig. 6). Each of the respective pair of bead members are disposed on a respective side of a mid circumferential plane MD of the tire. The tire 110 also includes a second upper carcass 118 having a plurality of bias plies around bead member 112A and 114A and a lower carcass 120 having a plurality of bias plies around bead member 112B and 114B (Fig. 6). Thus, the carcasses 118 and 120 used in Southerawsky contain many cords arranged side-by-side at a core angle of 90° or nearly 90° with respect to an equilateral plane of the tire.

To the contrary, Applicant uses a continuous cord successively repeating roundtrip as recited in claim 1. For example, as shown in Fig. 2 of Applicant's invention, Applicant's carcass is constructed by extending a ply cord on a first bead portion of the bead portions to the other bead portion or a second bead portion and return at a position of the bead core in the second bead portion, extend from the second bead portion to the first bead portion and again returning at a position of a bead core in the first bead portion and continuously and successively repeating such a roundtrip in the circumferential direction of the tire over a full circumference of the tire. Applicant asserts it is neither taught or suggested in Southerawsky to provide such a structure.

Also, Applicant uses a carcass ply which is sandwiched between two bead cores from an inside tire toward an outside thereof in the widthwise direction. Southerawsky fails to

disclose Applicant's claimed invention because the carcass 118 in Southerawsky is sandwiched between the bead core 112A and another carcass 120. Alternatively, the carcass 120 is sandwiched between the carcass 118 and the bead core 112B. It is neither taught nor suggested in Southerawsky to sandwich a single carcass between the bead cores 112A and 112B.

Science fails to overcome the deficiencies of Southerawsky because Science is only used to show that beads can be made of steel material. It is neither disclose nor suggested in Science how the steel beads are arranged in a pneumatic radial tire as recited in Applicant's claims 1 and 2.

In addition, claims 2 and 4 recites additional features of the invention and are also believed to be allowable for at least the reasons discussed above with respect to claim 1 and for the additional features recited therein. It is respectfully requested the rejection be withdrawn.

Claims 1 and 4 were rejected under 35 U.S.C. §103(a) over Masclaux, U.S. Patent No. 4,700,765, and further in view of Science. This rejection is respectfully traversed.

While Masclaux may use two bead cores in the bead portion, Masclaux also suffers the deficiencies of Southerawsky because Masclaux uses substantially the same carcass arrangement. In particular, Masclaux uses a first radial carcass ply 101 which is turned upward and around a second bead ring 12 and a connecting ply 103 which is turned upward and around the first bead ring 11. It is neither taught nor suggested in Masclaux to use a continuous cord successively repeating roundtrip as recited in Applicant's claim 1.

Southerawsky also fails to overcome the deficiencies of Masclaux because Science is only used to show that the beads can be made out of steel material.

In addition, claim 4 recites additional features of the invention and is also believed to be allowable for at least reasons discussed above with respect to claim 1 and for additional features recited therein. It is respectfully request the rejection be withdrawn.

Claim 9 was rejected under 35 U.S.C. §103(a) over either one of Southerawsky or Masclaux and further in view of Ueyoko, U.S. Patent No. 5,885,387. The rejection is respectfully traversed.

While Ueyoko uses two bead cores in the bead portion, in which two bead cores are arranged up and down in a radial direction, Ueyoko fails to overcome the deficiencies of Southerawsky and Masclaux as applied to claim 1 above.

In addition, claim 9 recites additional features of the invention and is also believed to be allowable for at least the reasons discussed above with respect to claim 1 and for the additional features recited therein. It is respectfully requested that the rejection be withdrawn.

In view of the foregoing, reconsideration of the application is requested. It is submitted that the claims as presented herein patentably distinguish over the applied references and fully meet the requirements of 35 U.S.C. §112. Accordingly, the allowance of claims 1, 2, 4 and 6-10 is respectfully solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact undersigned at the telephone number listed below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Scott M. Schulte
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JAO:SMS/sxb

Attachment:
Appendix

Date: December 3, 2001

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Claims:

Claims 3 and 5 are canceled.

Claim 10 is added.

The following is a marked-up version of the amended claim:

1. (Amended) A pneumatic radial tire comprising a radial carcass extending between a pair of bead portions each including two bead cores therein and reinforcing a pair of sidewall portions and a tread portion, wherein the radial carcass is comprised of a rubberized ply of a continuous cord successively repeating round trip in at least one of the two bead cores as a pair between the pair of the bead portions along a circumference of the bead portion and a roundtrip return portion of the cord is existent in both the bead portions, characterized in that the two bead cores in each bead portion are arranged adjacent to each other in the widthwise direction and at least one of the two bead cores has such a structure that one or more steel wires are arranged lengthwise and widthwise in radial and widthwise directions of the tire, and the cord of the carcass ply has a roundtrip return portion located through a side face of the bead core having the above structure so as to extend from an inside of the tire toward an outside thereof in the widthwise direction and cover at least an innermost steel wire arrangement of the bead core in the radial direction ~~from an inner side in the radial direction of the tire~~.